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3. Poor coordination between the various ministries controlling the Soviet computer effort continues to severely hamper plans to integrate computers

into their society. Those responsible for fabricating the computers, for instance, are not responsible for installing them. Therefore, a scientist ordering a computer, must uncrate it, set it up, and provide proper software. Consequently, the person ordering the computer has no idea whether or not it will work. If it does not, he then must determine on his own if installation is in error, or if the hardware is indeed defective. While the Soviets are doing very credible work in the mathematical/logical design field, inconsistencies in handling of computer hardware seem to cause endless frustration to those in need of such devices.

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and of the activation energy of viscous flow versus temperature. (IAN, SSSR, Metally, no 4)

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Comment: This paper indicates that the Soviets are pursuing a fairly basic approach to producing fine grained high purity Be castings. The affiliation of Skorov with the Soviet AE Program and the high purity Be indicate that the end use is probably for some type of nuclear components. The production of fine grained material, a long term problem, has two benefits. The first is improvement of the mechanical/structural properties of the casting. The second is the greater ease of milling castings into fine grained powder for powder metallurgy use.

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Soviets Use BESM-6 Computer to Process Photography: Workers at the Institute of Problems of Information Transmission of the USSR Academy of Sciences are using a BESM-6 digital computer to enhance the quality of photography taken through an astronomical telescope. The BESM-6 program scans the photograph to obtain a density recording in digital form, magnifies the size of the smallest picture details, and then reconstructs the photograph giving the smaller details sharper delineation. The work also includes techniques for eliminating impulse interference, which is a common problem in using communication channels to transmit pictures, by substituting estimated picture density values for interference points and lines.

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Comment: This work appears to be an extension of earlier work conducted by the Academy of Sciences in Moscow and confirms a previous speculation that the BESM-6 computer was being utilized in the earlier work. The development of techniques for reducing impulse interference, which was not specified in the earlier work, suggests that the Soviets may desire a capability for on-line processing of pictures transmitted from space vehicles as well as for processing hard copy images. The use of the BESM-6, which is the largest and fastest digital computer openly revealed by the Soviets, indicates that the on-line use may be emphasized. The techniques used in the present system involving the BESM-6 could be applied in accomplishing near real-time preliminary processing of photographs or televised images from reconnaissance satellites and aircraft as well as from space probes.

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